

# Commercial Vehicle Battery Solutions

*Making your fleet  
unstoppable*

Comprehensive  
battery range  
for all commercial  
vehicle needs:

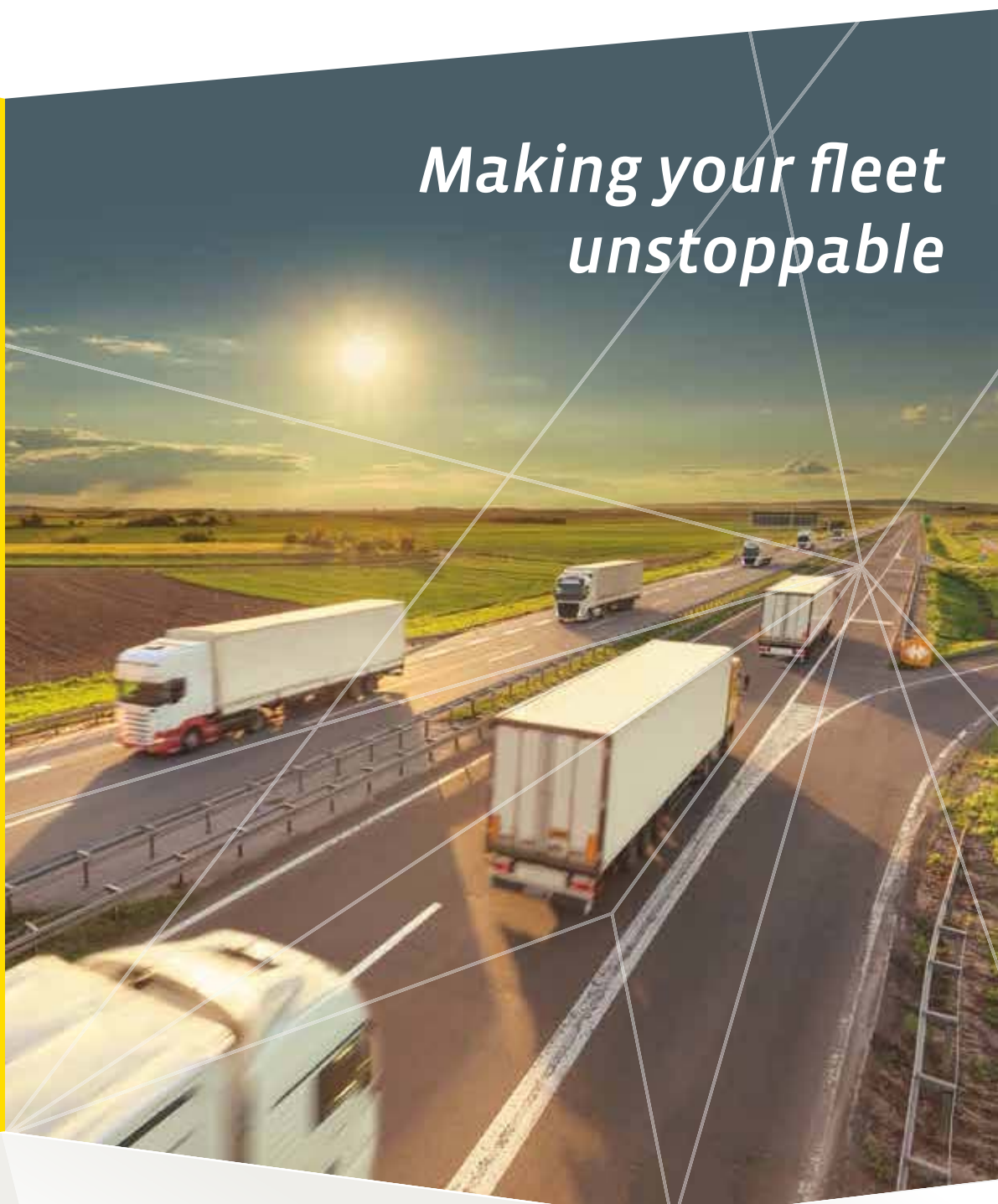
StrongPRO

EndurancePRO

PowerPRO

StartPRO

PowerPRO  
Agri & Construction



Made in Europe  
by Exide Technologies  
Original Equipment  
Manufacturer



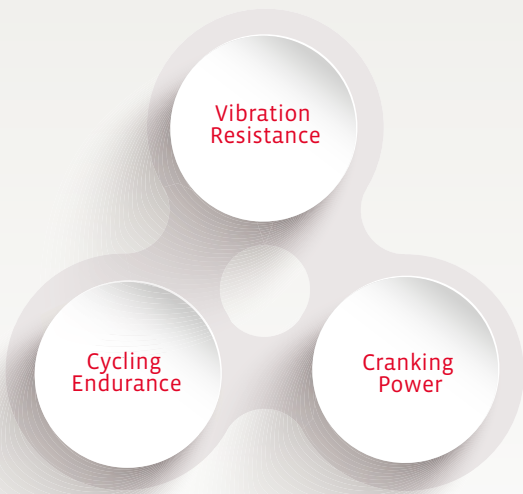
# Batteries that mean business

## High-performance batteries to keep your business moving

Logistics is more important than ever, with customers expecting faster and more predictable deliveries. In this competitive environment, fleet owners are focusing on total cost of ownership. After all, when a truck is off the road, it leads to customer dissatisfaction, unused labor and capital, and potential fines and penalties.

Fulmen designed its battery range to reduce the risk of breakdowns and give customers a competitive advantage. You get market-leading performance, lower total cost of ownership, and battery options for any use case.

As a true expert in OE batteries, Fulmen helps you select the right battery. For fleet owners and installers alike, it is vital to make the right choice for the conditions of use. Three important criteria to consider in battery performance are: vibration resistance, cycling endurance and cranking power.



### Three main factors when selecting the right battery:



**Vibration resistance:** For trucks with rear-chassis battery installations (e.g. Euro 5/ Euro 6 trucks), robust and high-vibration-resistant batteries are mandatory to avoid breakdowns. Vibration resistance is also required for any vehicle operating on bad roads or rough terrain.

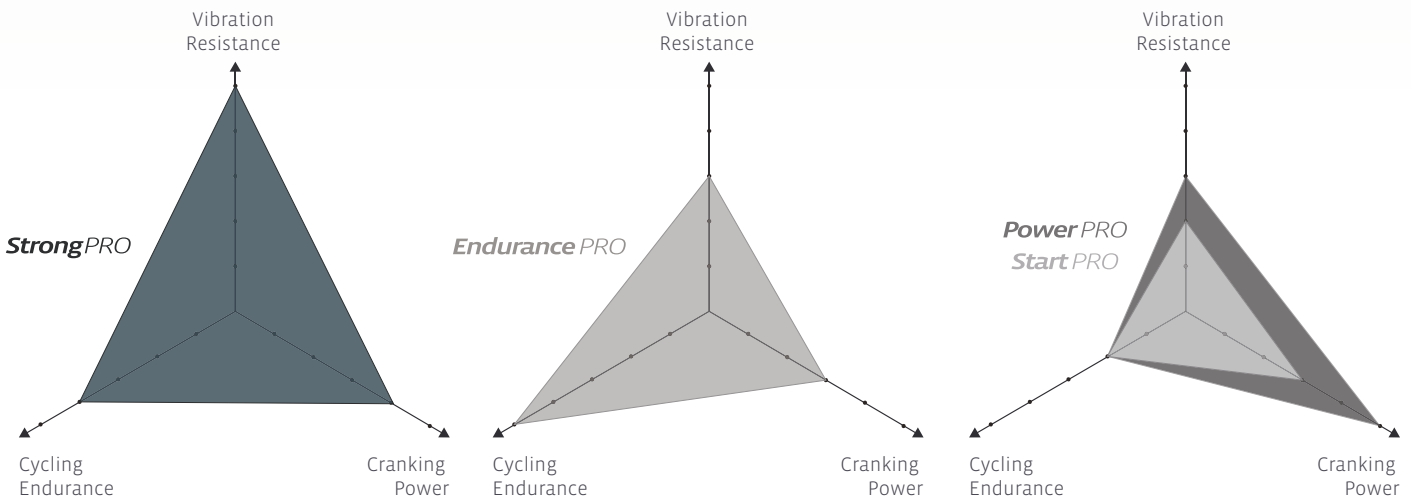


**Cycling endurance:** High cycling endurance is important in batteries for long-haul trucks with life on-board, commercial vehicles doing intensive urban deliveries, and any commercial vehicle with extensive energy requirements. This maximizes battery lifespan and ensures a safe battery start.



**Cranking power:** High cranking power allows for engine starts in cold climates and is required for many power-intensive vehicles in agriculture and construction.

## The perfect battery for every need



# Select the right Fulmen battery for your needs



StrongPRO



EndurancePRO



PowerPRO



PowerPRO  
Agri & Construction



StartPRO

## RANGE OVERVIEW & FEATURES

Vibration resistance	★★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Cycling endurance	★★★★★	★★★★★★	★★★☆☆	★★★☆☆	★★★★★
Cranking power	★★★★★	★★★★★	★★★★★★	★★★★★★	★★★★★
Charge acceptance	★★★★★★	★★★★★	★★★☆☆	★★★☆☆	★★★★★
Maintenance	Free	Low	Free	Free	Low

## BATTERY SELECTION BY USE & APPLICATION

✓ Recommended    ! Mandatory

Rear-chassis installation	!				
Rough terrain, high vibrations	✓				
Power-hungry equipment	✓	✓			
Overnight stop, life on-board	✓	✓			
Extreme cold, large engines	✓		✓		

## BATTERY SELECTION BY VEHICLE TYPE

Long-Haul truck/coach 	✓	✓	✓		
Express delivery (lifters) 		✓			
City bus 		✓	✓		
Tractor 	✓		✓	✓	
Construction machines 	✓			✓	
Standard truck 	✓	✓	✓		✓

## Trusted by leading commercial vehicle manufacturers

We have been supplying lead-acid batteries to car and truck makers for 120 years. We design the most technically advanced products in the industry, and were the first to introduce High Vibration Resistant (HVR®) batteries for trucks back in 2008. Vehicle manufacturers trust the quality of our products and our commitment to excellence in manufacturing.

Our company works with leading commercial vehicle manufacturers, including:

**Isuzu, Iveco, MAN, Nissan, Renault Volvo Trucks, Scania, Bobcat, Case, Claas, Deutz Fahr, Evobus, John Deere, Komatsu, New Holland, Wacker Neuson, and many others...**



# StrongPRO



## Innovating the indestructible battery

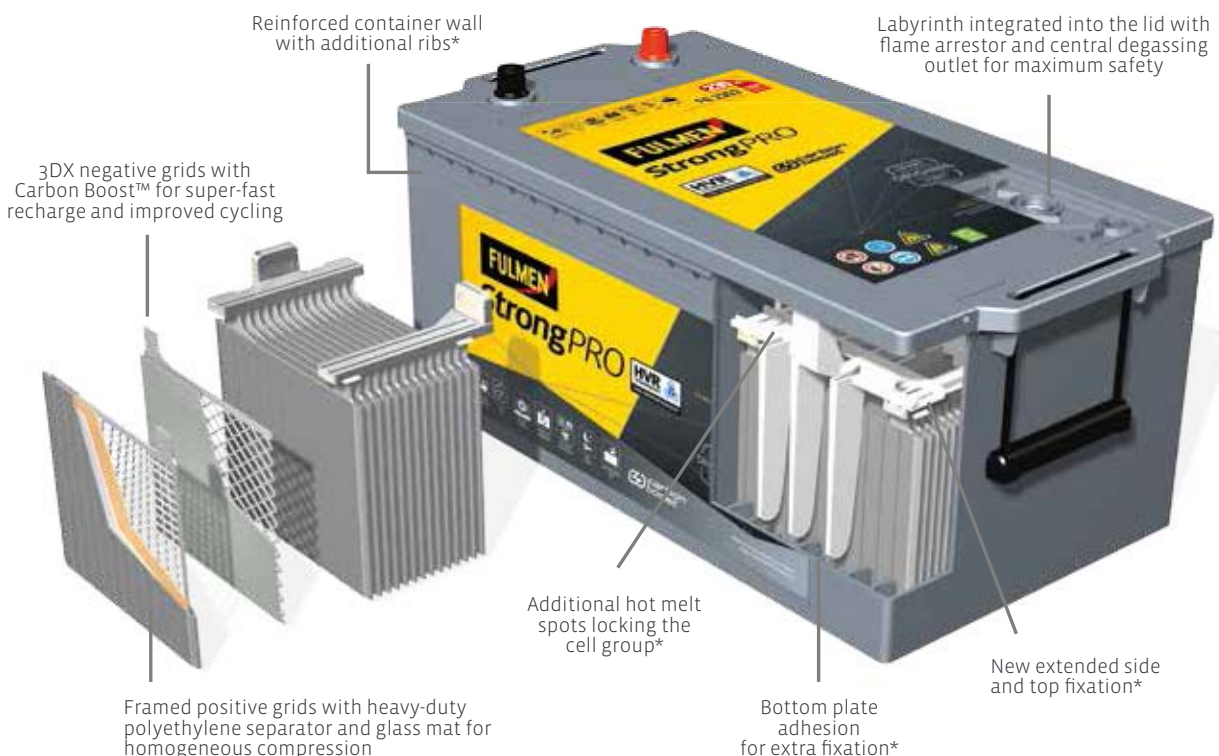
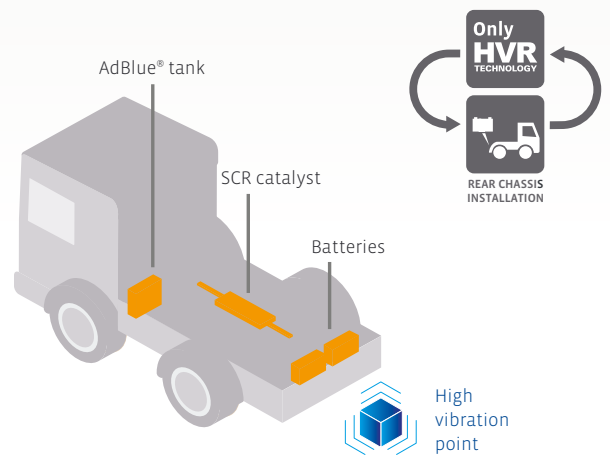
The new Fulmen StrongPRO features a next-generation HVR® (high vibration resistance) design, and comes with Carbon Boost™, our smart solution for reduced acid stratification and faster recharge. Since the AdBlue® tank was introduced (Euro 5/6), truck makers have moved the battery to the rear chassis, where increased vibrations cause early battery failures. Fulmen's unique HVR® technology prevents this, and enables StrongPRO to pass the extreme vibration tests under the new European V4 standard (EN 50342-1:2015).

Using StrongPRO means less risk of breakdowns, more starting reliability, and longer lifespan – providing the lowest total cost of ownership for your fleet. As a leading OEM supplier, Fulmen brings the latest technology straight to the aftermarket.

### NEW!

#### Benefits

- › Extremely robust – latest HVR® technology
- › Mandatory for chassis-end installation (e.g. Euro 5/ Euro 6 trucks) and ideal for rough terrain
- › Carbon Boost™ for faster recharge and reduced acid stratification
- › Ideal for long-haul trucks with comfort equipment to support “life on board”
- › Maximum starting reliability after overnight stay
- › OE experience inside
- › First class safety features
- › Maintenance free – no topping up
- › Optimal total cost of ownership (TCO)



# The Carbon Boost™ Effect

Our smart electrochemical solution for longer battery life

Early battery failures are common in commercial vehicles, caused by exposure to deep discharge conditions. Challenges to the battery include frequent starting and stopping for urban deliveries, and overnight heating and lighting for long-haul trucks. This strain leads to sulphation and acid stratification, damaging battery lifespan.

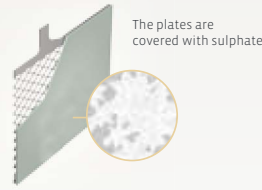
With Carbon Boost™, unique carbon additives increase the speed at which sulphate particles dissolve. This leads to faster recharging, protection from sulphation, and less stratification.

The carbon additives also promote controlled gassing during recharging, which keeps the electrolyte mixed and further reduces stratification.

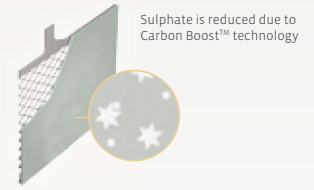
### The benefits of Carbon Boost:

- › Improved charge acceptance
- › Faster recharging
- › Reduced acid stratification
- › Enhanced cycling endurance

**Sulphation:** Sulphate particles progressively cover the negative plates. This makes recharging less efficient, because energy is used to dissolve the sulphate.

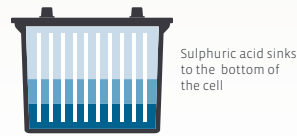


Without Carbon Boost™

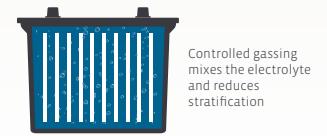


With Carbon Boost™

**Acid stratification:** Sulphate particles turn into sulphuric acid during charging. This is heavier than the electrolyte, so it sinks to the bottom, creating a range of negative effects, including reduced capacity.



Without Carbon Boost™



With Carbon Boost™



# EndurancePRO

Made for severe cycling



### Benefits

- › 50% more cycle life compared to standard truck battery (advanced SHD technology with glass mat separators)
- › Ideal for long-haul trucks with comfort equipment to support “life on board”
- › Ideal for delivery trucks with hydraulic/electric lifts
- › Improved durability
- › Low maintenance - may need water topping
- › OE experience inside



SUPERIOR CYCLING



SUPERIOR EQUIPMENT



SAFE START



URBAN DELIVERY



LOW MAINTENANCE



# PowerPRO

Impressive power at every start



## Benefits

- › Superior cranking power (more plates and active material to maximize grid surface)
- › Ideal for cold temperatures
- › Ideal for trucks/ buses with big engines
- › Robust and reliable design with hot melt fixation of plate groups
- › Maintenance free - no topping up
- › OE experience inside



SUPERIOR  
POWER



COLD  
TEMPERATURE



MAINTENANCE  
FREE



# StartPRO

Reliable starting power for standard use



## Benefits

- › Ideal for trucks without special requirements in terms of vibration resistance, cycling or cranking power
- › Robust and reliable design with hot melt fixation of plate groups
- › Complete range covering almost 100% of vehicle parc, including special types
- › Low maintenance - may need water topping up



**NEW!**

# PowerPRO Agri & Construction

Choose the original part

Designed specifically to fulfill the demanding requirements of major agriculture and construction OEMs, PowerPRO Agri & Construction offers outstanding reliability, starting power and high capacity.



## Benefits

- › Superior cranking power (more plates and active material to maximize grid surface)
- › Specifically designed for agricultural, forestry and construction machinery
- › Robust design with hot melt fixation of plate groups
- › Wide range including special types
- › True OE design and construction (original part)
- › Maintenance Free - no topping up



TRUE OE  
AGRI FIT



TRUE OE  
CONSTRUCTION FIT



SUPERIOR  
POWER



MAINTENANCE  
FREE

SPARE  
ORIGINAL  
PART



# Type List



NEW!



StrongPRO

CODE	PERFORMANCE		DIMENSIONS			TECHNICAL CHARACTERISTICS		
	CAPACITY	CCA	L (mm)	H (mm)	W (mm)	POLARITY	HOLD DOWN	BOX
	Ah	A (EN)						
FE1403	140	800	513	223	189	ETN 3	B0	Do4
FE1853	185	1100	513	223	223	ETN 3	B0	Do5
FE2353	235	1200	518	240	279	ETN 3	B0	Do6



EndurancePRO

FX1803	180	1000	513	223	223	ETN 3	B0	Do5
FX2253	225	1100	518	240	279	ETN 3	B0	Do6



PowerPRO

FF1202	120	870	349	235	175	ETN 0	B1	Do2
FF1420	142	850	349	290	175	ETN 0	B0	Do3
FF1421	142	850	349	290	175	ETN 1	B0	Do3
FF1453	145	900	513	223	189	ETN 3	B0	Do4
FF1853	185	1150	513	223	223	ETN 3	B0	Do5
FF2353	235	1300	518	240	279	ETN 3	B0	Do6

NEW!



PowerPRO  
Agri & Construction

FJ1102	110	900	349	235	175	ETN 0	B1	Do2
FJ1100	110	900	349	235	175	ETN 0	B0	Do2
FJ1523	152	1130	513	223	189	ETN 3	B0	Do4
FJ1723	172	1390	513	223	223	ETN 3	B0	Do5
FJ2353	235	1450	518	240	279	ETN 3	B0	Do6
FJ1805	180	1000	510	225	218	ETN 3	B3	Do9
FJ165A	165	850	354	285	241	ETN 6	B0	D67
FJ1355	135	1000	514	210	175	ETN 3	B3	DB8
FJ110B	110	950	330	240	173	ETN 9	B0	G31
FJ050C	50	800	260	206	173	ETN 1	B7	G34
FJ1000	100	850	353	190	175	ETN 0	B13	L05



StartPRO

FG1402	140	900	508	205	175	ETN 0	B1	ATM
FG1008	100	680	413	220	175	ETN 0	B3	Do1
FG1109	110	800	413	220	175	ETN 1	B3	Do1
FG1100	110	750	349	235	175	ETN 0	B0	Do2
FG1101	110	750	349	235	175	ETN 1	B0	Do2
FG1102	110	750	349	235	175	ETN 0	B1	Do2
FG1250	125	760	349	290	175	ETN 0	B0	Do3
FG1251	125	760	349	290	175	ETN 1	B0	Do3
FG1203	120	680	513	223	189	ETN 3	B0	Do4
FG1403	140	800	513	223	189	ETN 3	B0	Do4
FG1553	155	900	513	223	223	ETN 3	B0	Do5
FG1803	180	1000	513	223	223	ETN 3	B0	Do5
FG2153	215	1200	518	240	279	ETN 3	B0	Do6
FG2154	215	1200	518	240	279	ETN 4	B0	Do6
FG1206	120	680	510	225	175	ETN 4	B3	Do8
FG1406	140	800	510	225	175	ETN 4	B3	Do8
FG1806	180	1000	510	225	218	ETN 4	B3	Do9
FG1355	135	1000	514	210	175	ETN 3	B3	DB8
FG1705	170	950	514	210	218	ETN 3	B3	DB9
FG1353	135	1000	514	210	218	ETN 3	B0	DB9
FG145A	145	1000	360	240	253	ETN 6	B0	F21
FG110B	110	950	330	240	173	ETN 9	B0	G31



## Did you know?

We have the most comprehensive fitment list on the market. The list is constantly updated to include the latest vehicles, so you will always find the right battery for your vehicle. Contact your local sales representative to request a paper copy or visit [www.exide.com](http://www.exide.com) to view our online catalogue. You can also download the FREE Exide Battery Finder app to access fitment information on the go.

Exide Battery Finder app



**Exide Technologies**, with operations in more than 80 countries and more than 120 years of experience, is one of the world's largest producers and recyclers of lead-acid batteries. The company develops state-of-the-art energy storage solutions for the automotive and industrial market. Leading car, truck and lift truck manufacturers trust in Exide Technologies as an original equipment supplier. Exide also serves the aftermarket through a portfolio of successful and well-known brands.

Exide Transportation manufactures batteries for light and commercial vehicles, as well as agricultural and marine leisure applications. Industrial markets – under the division **GNB Industrial Power** – include efficient energy storage solutions for motive power applications such as lift trucks, cleaning machines and other commercial electrical vehicles, and network power applications such as telecommunications systems, renewables, and uninterruptible power supply (UPS).

Exide's engineers have always been at the forefront of bringing important innovations to the industry. Exide's ISO/TS-certified manufacturing facilities ensure that customers receive products that are produced with maximum efficiency and fulfill the highest quality standards, while minimizing impact on the environment.

Exide's extensive sales and distribution network provides quality service and delivers on time to its customers. Its world-class recycling facilities ensure that batteries will be reused, helping to make a positive contribution to the environment. Exide also provides services, accessories and energy consulting to its clients.



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Fulmen Battery Finder

